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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,173	02/10/2006	Walid Ali	PHUS030273US	6165
38107 7590 03/17/2010 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P. O. Box 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER BEHRINGER, LUTHER G				
ART UNIT		PAPER NUMBER		
3766				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/568,173

**Applicant(s)**

ALI, WALID

**Examiner**

Luther G. Behringer

**Art Unit**

3766

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to the communication received on 11/23/2009 concerning application no. 10/568173 filed on 02/10/2006.

### ***Response to Arguments***

2. Applicant's arguments filed 11/23/2009 have been fully considered but they are not persuasive.
3. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.
4. In addition, applicant failed to address the double patenting rejection presented 06/22/2009.

### ***Claim Objections***

5. An amendment to the claim 7 has obviated the necessity of the objection raised in the action dated 06/22/2009. Therefore, that objection is withdrawn.
6. The objection to claim 10 is maintained. Claim 10 presents the alternative step of "providing an alarm indication ... if no artifact was detected." This appears to be the opposite of the requirement of parent claim 7, in which the alarm indication is triggered "in response to determining an artifact was detected."

***Claim Rejections - 35 USC § 102***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim(s) 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by **Shimauchi et al. (US 5,661,813, herein Shimauchi)**.

Regarding **claim(s) 1 and 13**, Shimauchi discloses a device and system comprising: a controller, *echo canceller 22<sub>m</sub>*; a memory coupled to the controller, *Sig Storage and Vect Gen 17<sub>n</sub>*; and an input interface arranged to receive at least two event signals, **11<sub>1</sub>, 11<sub>2</sub>, 11<sub>n</sub>**, wherein the controller is arranged to determine a global correlation, for the at least two event signal over a first period of time, *correlation between previously received signals*, determine a local correlation, for the at least two event signals over a second period of time which is shorter than the first period of time, *correlation between current received signals*, determine a deviation between a local correlation vector and a global correlation vector, *a variation in the cross-correlation*, determine an average deviation from the deviation, *Normalized Least Mean Square algorithm*, and determine whether an artifact, *echo*, was detected in one of the at least two event signals (Abstract, Fig. 6, Col. 2, ll. 9 – 37).

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claim(s) 2 – 6 and 14 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shimauchi et al. (US 5,661,813, herein Shimauchi)** in view of **Snyder et al. (US 6,287,328, herein Snyder) (cited previously)**.

With regard to **claim(s) 2 and 14**, Shimauchi fails to disclose wherein said device is a patient monitoring system.

However, Snyder teaches wherein said device is a patient monitoring system (Abstract).

11. As applicant admits on page 4, ll. 12 – 20 of the specification that the instant invention is intended for use with any measured input signal source, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the patient monitoring system having multivariable artifact assessment as disclosed by Snyder to utilize the artifact assessment techniques as taught by Shimauchi since all of the claimed elements were disclosed in the prior art and the combination would have yielded predictable results to one of ordinary skill at the time of the invention.

Regarding **claim(s) 3 and 15**, Shimauchi in view of Snyder discloses wherein said at least two event signals are patient monitored data signals (Snyder: Col. 4, ll. 42 – 47).

With regard to **claim 4**, Shimauchi in view of Snyder discloses all of the limitations of claim 4 as discloses in claim 1 above and further discloses an alarm indicator coupled to the controller, the alarm indicator being triggered if at least one of the event signals crosses a preset threshold value and the controller determines that no artifact was detected in the at least one event signal (Snyder: Col. 7, ll. 55 – 63).

Regarding **claim 5**, Shimauchi in view of Snyder inherently discloses a memory for recording the at least two event signals (Snyder: Col. 4, ll. 24 – 41).

Regarding **claim 6**, Shimauchi in view of Snyder discloses wherein said device is a server forming part of a client-server network (Shimauchi: Col. 1, ll. 11 – 39).

With regard to **claim 16**, Shimauchi in view of Snyder discloses the method further including: means for monitoring at least one physiological parameter of a patient and generating the at least two event signals, *sensors*, said at least two event signals conveying patient physiological parameter data (Snyder: Abstract; Col. 4, ll. 42 – 47).

12. Claim(s) 7 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Snyder et al. (US 6,287,328, herein Snyder)** in view of **Shimauchi et al. (US 5,661,813, herein Shimauchi)**.

Regarding **claim 7**, Snyder discloses a controller, *inference processor*; a memory coupled to the controller; and an input interface which receives at least two event signals, the at least two event signals being patient monitored data signals, *measurement system*; wherein the controller determines whether an artifact is detected (Column 4, lines 24 – 41) and triggering an alarm indication in response determining that an artifact was detected (Abstract). Snyder fails to disclose the method of determining artifact corruption as claimed in the instant application.

However, Shimauchi teaches determining artifact, *echo*, corruption by using: a global correlation matrix for the at least two event signals over a first period of time, *correlation between previously received signals*, a local correlation matrix for the at least two event signals over a second period of time which is shorter than the first period of

time, *correlation between current received signals*, a correlation vector indicative of a deviation between the local correlation matrix and the global correlation matrix, *a variation in the cross-correlation*, an average of the correlation vector, *Normalized Least Mean Square algorithm*, and whether an artifact, *echo*, was detected in one of the at least two event signals from the correlation vector and the average, of the correlation vector (Abstract, Fig. 6, Col. 2, ll. 9 – 37).

13. As applicant admits on page 4, ll. 12 – 20 of the specification, that the instant invention is intended for use with any measured input signal source, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the artifact assessment techniques as disclosed by Shimauchi for detection of artifact in a patient monitoring system since all of the claimed elements were disclosed in the prior art and the combination would have yielded predictable results to one of ordinary skill at the time of the invention.

With regard to **claim 8**, Snyder in view of Shimauchi discloses wherein said device is a patient monitoring system (Snyder: Abstract).

Regarding **claim 9**, Snyder in view of Shimauchi discloses wherein said at least two event signals are patient monitored data signals (Snyder: Col. 4, ll. 42 – 47).

Regarding **claim 10**, Snyder in view of Shimauchi discloses providing the alarm indication in response to at least one of the event signals crossing a preset threshold value and no artifact was detected in the at least one event signal (Snyder: Col. 7, ll. 55 – 63).

With regard to **claim 11**, Snyder in view of Shimauchi inherently discloses a memory for recording the at least two event signals (Snyder: Col. 4, ll. 24 – 41).

Regarding **claim 12**, Snyder in view of Shimauchi discloses wherein said method is used in a server forming part of a client-server network (Shimauchi: Col. 1, ll. 11 – 39).

### ***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luther G. Behringer whose telephone number is (571)270-3868. The examiner can normally be reached on Mon - Thurs 9:00 - 6:30; 2nd Friday 9:00 - 5:30.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on (571) 272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl H. Layno/  
Supervisory Patent Examiner, Art Unit 3766

/Luther G Behringer/  
Examiner, Art Unit 3766